## INVESTIGATOR'S ANNUAL REPORT

## **National Park Service**

All or some of the information provided may be available to the public

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Reporting Year:	Park: Shenandoah NP
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Permit#:	
SHEN1998N-231	
Park-assigned Study Id. #:	
unknown	
Project Title:	
Long Term Recovery Of Fish Populations After A 500 Year Flood Event In A Shenandoah National Park Stream	
Permit Start Date:	Permit Expiration Date
Jan 01, 1998	Jan 01, 1999
Study Start Date:	Study End Date
Jan 01, 1998	Jan 01, 2001
Study Status: Completed	
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Activity Type: Research	
Subject/Discipline:	
Fish / Ichthyology	
Objectives:	
The primary objective is to determine the characteristics of recovery (change in fish populations - density, growth, movements) in a mountain stream after a catastrophic flood and debris flow. We will be using radio telemetry, mark and recapture, and two-way wiers (traps) to monitor fish movements	
among different habitat types(eg. pools and riffles within flood affected and unaffected reaches)	
Findings and Status:	
After being completely wiped out following the June, 1995 event, brook trout have recolonized the entire 1.6 km of flood-affected Satunton River.	
Blacknose dace also are now present, but in smaller numbers and distributed more patchily (in low-gradient, relatively shallow pools). Brook trout	
growth is significantly greater in the flood-affected reach. As evidenced by recovery of fish marked with PIT tags, brook trout are capable of negotiating steep cascades in both down and upstream directions. This research is being conducted in junction with studies of benthic macroinvertebrate	
production and water chemistry.	
For this study, were one or more specimens collected and removed from the park but not destroyed during analyses?	
No	
Funding provided this reporting year by NPS:	Funding provided this reporting year by other sources:
0	31600
Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college	
Full name of college or university:	Annual funding provided by NPS to university or college this reporting
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